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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
HINES, ANNE M	

ART UNIT	PAPER NUMBER
2879	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,405	LI, JIN	
	Examiner	Art Unit	
	ANNE M. HINES	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 July 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion, unless the cited pending U.S. application is stored in the Image File Wrapper (IFW) system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all "statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the relationship

between the magnetic energy generator and the light body of claims 8-10 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically in independent claim 8, the phrase "for communicating separated said indented grooves" is unclear. It appears that applicant intended 'for communication between the indented grooves of the separated magnetic members'. Additionally, the claim ends with a semi-colon, which is improper. Claims must be terminated with a period. Appropriate correction is required.

Claims 9-10 are rejected due to their dependence from claim 8.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirayama et al. (US 4547705).

Regarding claim 1, Hirayama discloses an assembled magnetic energy generator comprising a pair of detachable magnetic members jointed together with a face to face manner, each of the magnetic members having at least an indented groove defined at a facing side and a correspondingly aligned position (Fig. 6b; Column 5, lines 14-31; Abstract), such that when the magnetic members approach and joint together,

the indented grooves will be combined and form a magnetic air gap communicating the indented grooves between the magnetic members (Fig. 6b; Column 5, lines 14-31; Abstract).

Regarding claim 6, Hirayama further discloses wherein the magnetic air gap is predetermined between at least two of the indented grooves, at least two of the magnetic air gaps formed between the two magnetic members for communicating between at least two of the indented grooves (Fig. 6b; Column 5, lines 14-31; Abstract).

Regarding claim 7, Hirayama further discloses wherein an engaging shoulder and an engaging terrace are respectively defined at two of the magnetic members for ensuring the pair of magnetic members jointed together with a face to face member (Fig. 6b; Column 5, lines 14-31; Abstract). Note that the Examiner understands the word 'shoulder' to be defined as "the area of an item or object that serves as an abutment" (American Heritage Dictionary), and Hirayama describes the sides of the magnetic cores as abutting to each other (Column 5, lines 14-31); therefore, the flat surfaces of the magnetic cores are considered as meeting the required engaging shoulder and terrace of the magnetic members.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2 and 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirayama et al. (US 4547705) in view of Thomspon (US 5395218).

Regarding claim 2, Hirayama teaches the invention of claim 1 including a multiple adjacent magnetic cores and windings (Fig. 7a, 3 & 4 & 4'), but fails to teach an insulated bakelite frame provided onto the magnetic air gap for winding up an electromagnetic coil thereon.

In the same field of endeavor, Thompson teaches surrounding electrical windings with bakelite in order to electrically insulate the windings from adjacent windings (Fig. 1, 62 & 52 & 54; Column 4, lines 43-46).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Hirayama to have a bakelite frame provided onto the magnetic air gap for winding up an electromagnetic coil thereon in order to electrically insulate each winding of Hirayama from adjacent windings, as disclosed by Thomspon.

Regarding claim 4, Hirayama further teaches wherein each of the magnetic members has two indented grooves defined at the facing side at correspondingly aligned positions such that when the two magnetic members jointed with a face to face manner, the indented grooves align and combine to form the magnetic air gap between the two indented grooves for communicating between the two indented grooves (Fig. 6b; Column 5, lines 14-31; Abstract), but fails to teach an insulated bakelite frame provided onto the magnetic air gap for winding up an electromagnetic coil thereon.

In the same field of endeavor, Thompson teaches surrounding electrical windings with bakelite in order to electrically insulate the windings from adjacent windings (Fig. 1, 62 & 52 & 54; Column 4, lines 43-46).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Hirayama to have a bakelite frame provided onto the magnetic air gap for winding up an electromagnetic coil thereon in order to electrically insulate each winding of Hirayama from adjacent windings, as disclosed by Thomspon.

Regarding claim 5, Hirayama further teaches wherein each of the magnetic members has four indented grooves defined onto the facing side at correspondingly aligned positions such that when the two magnetic members approach each other and joint with a face to face manner, each of the indented grooves mates with counterpart indented grooves to form two of the magnetic air gaps for communicating between two of the indented grooves (Fig. 6b; Column 5, lines 14-31; Abstract), but fails to teach an insulated bakelite frame provided onto the magnetic air gap for winding up an electromagnetic coil thereon.

In the same field of endeavor, Thompson teaches surrounding electrical windings with bakelite in order to electrically insulate the windings from adjacent windings (Fig. 1, 62 & 52 & 54; Column 4, lines 43-46).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Hirayama to have a bakelite frame provided onto the magnetic air gap

for winding up an electromagnetic coil thereon in order to electrically insulate each winding of Hirayama from adjacent windings, as disclosed by Thomspon.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirayama et al. (US 4547705) and Thomspon (US 5395218) in view of Kawaguchi et al. (US 4163826).

Regarding claim 3, Hirayama and Thompson teach the invention of claim 2, including windings, but fails to teach wherein the windings are an electromagnetic coil comprising a plurality of enameled magnet wires covered by an insulator.

In the same field of endeavor, Kawaguchi teaches wherein a winding is an electromagnetic coil comprising a plurality of enameled magnet wires covered by an insulator in order to obtain a winding with no spaces among the wires and therefore a good space factor (Column 3, lines 3-31).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Hirayama and Thompson to have an electromagnetic coil comprising a plurality of enameled magnet wires covered by an insulator in order to obtain a winding with no spaces among the wires and therefore a good space factor, as disclosed by Kawaguchi.

Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Godyak et al. (US 5834905) in view of Thompson (US 5395218).

Regarding claim 8, Godyak teaches a magnetic light comprising an enclosed hollow body having an inner cavity (Figs. 1 & 2, 12 & 14; Column 3, lines 54-60), comprising a fluorescent coated onto the inner cavity (Figs. 1 & 2, 16; Column 3, lines 54-60), an inert air and a mercury received within the inner cavity (Column 3, lines 54-60), and a magnetic energy generator for supporting the light body penetrated through therein (Figs. 1 & 2, 24 & 32; Column 4, lines 6-51), comprising a pair of detachable magnetic members jointed together with a face to face manner, wherein each of the magnetic members has at least an indented groove defined onto a facing side at an aligned position for supporting the light body such that when the two magnetic members approach with each other, the correspondingly mated indented grooves will combine to clamp the light body therebetween and to form a magnetic air gap between the two members for communicating between the indented grooves of the separated magnetic members (Figs. 1 & 2, 24; Column 4, lines 6-51), but fails to teach wherein an insulated bakelite frame provided onto the magnetic air gap for winding up an electromagnetic coil thereon.

In the same field of endeavor, Thompson teaches surrounding electrical windings with bakelite in order to electrically insulate the windings from adjacent windings (Fig. 1, 62 & 52 & 54; Column 4, lines 43-46).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Godyak to have a bakelite frame provided onto the magnetic air gap for winding up an electromagnetic coil thereon in order to electrically insulate each winding of Hirayama from adjacent windings, as disclosed by Thomspon.

Regarding claim 10, Godyak further discloses wherein each of the magnetic members is half-pipe shaped to define the indented groove, whenever the two detachable magnetic member approach and joint with a face to face manner, the two half-pipe shaped magnetic members will automatically combine to form a round shape magnetic body, wherein the magnetic air gap is formed at one side of the magnetic body, the light body is penetrating through the round shape magnetic body for luminous purpose (Figs. 1 & 2, 24; Column 4, lines 6-51). Motivation to combine with Thompson such that the bakelite is provided to the magnetic air gap for winding up the electromagnetic coil is the same as for claim 8.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Godyak et al. (US 5834905) and Thompson (US 5395218) in view of Hirayama et al. (US 4547705).

Regarding claim 9, Godyak and Thompson teach the invention of claim 8 including wherein a bakelite frame is provided in the magnetic gap and the light body penetrates the indented grooves to be clamped by the magnetic members, but fail to teach wherein the magnetic cores have four indented grooves defined at the facing side at aligned positions such that when two magnetic members approach each other to form a joint in a face to face manner, the indented grooves combine to form two of the magnetic air gaps between the two magnetic members for communicating between respective pairs of indented grooves.

In the same field of endeavor, Hirayama teaches a pair of magnetic members with four indented grooves defined at the facing side at aligned positions such that when two magnetic members approach each other to form a joint in a face to face manner, the indented grooves combine to form two of the magnetic air gaps between the two magnetic members for communicating between respective pairs of indented grooves in order to provide a magnetic path with a high output voltage for starting a lamp (Fig. 6b; Column 5, lines 14-31; Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Godyak and Thompson to have the two magnetic members formed like the magnetic members of Hirayama such that it has a pair of magnetic members with four indented grooves defined at the facing side at aligned positions such that when two magnetic members approach each other to form a joint in a face to face manner, the indented grooves combine to form two of the magnetic air gaps between the two magnetic members for communicating between respective pairs of indented grooves in order to provide a magnetic path with a high output voltage for starting a lamp, as disclosed by Hirayama.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne M. Hines whose telephone number is (571) 272-2285. The examiner can normally be reached on Monday through Friday from 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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